NORTH AFRICAN MONSOON TIME SCALE

(Basics of the North African Monsoon Time Scale)

By

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ABSTRACT:

The north African climate cycles have a unique history that can be traced back millions of years.The cyclic climate pattern of the sahara is characterized by significant shifts in the strenthof the north African monsoon. Variations in the strength of the north African monsoon have been found to be strongly related to the stronger 23,000 year processional cycle.

KEY WORDS:

North African Monsoon, Indian monsoon Time Scale, Chronological sequence, Main path of the Indian Monsoon Astrogeophysical/Astrometeorological Phenomena.

INTRODUCTION:

The North African Monsoon Time Scale is a Chronological sequence of events arranged in between time and weather with the help of a scale for studying the past, present and future movements of the North African Monsoon and its relationship with rainfall and other weather problems and natural calamities.

PREPARATION OF THE SCALE:

Prepare the North African Monsoon Time Scale having 365 horizontal days from March 21st to next year March 20th (or 1st April to next year March 31st or according to convenience) for a required period comprising of a large time and weather have been taken and framed into a Square graphic scale, or 2, or 4 parts later the parts may be combined with pasting.

DATA REQUIRED FOR THE SCALE:

The main Weather events of the monsoon season if any pertaining to the monsoon season may be taken to formulating the North African Monsoon Time Scale.

PERFORMANCE OF THE SCALE:

Prepare the North African Monsoon Time Scale having 365 horizontal days from March 21st to next year March 20th (or 1st April to Next Year March 31st or according to convince) for a required period comprising of a Large time and weather have been taken and framed into a square graphic Scale . The Scale may be prepared either in a single from, or 2,or 4 parts later the parts should be combined with pasting. The main weather events if any pertaining to the monsoon season of the region have been entering on the scale as per the date and month of the each and every year. If we have been managing the North African Monsoon Time Scale in this manner continuously we can study the past, present and future movements of the North African Monsoon and its relationship with weather problems and Natural calamities of the monsoon.

SAMPLE MODEL SCALE:

For example, I have prepared the monsoon time scale for India by preparing the scale having 365 horizontal days from 1st April to next year March 31st of 128 years from 1888 to 2016 of the required period comprising of large time and weather have been taken and framed into a square graphic scale. The monsoon pulses in the form of low pressure systems over the Indian region have been entering on the scale in stages by 1 for low, 2 for depression, 3 for storm, 4 for severe storm and 5 for severe storm with core of hurricane winds pertaining to the date and month

of the each and every year. If we have been managing the scale in this manner continuously, we can study the past' present's and future's of the India Monsoon and its relationship with rainfall and other weather problems & natural calamities in India.

ANALYSIS:

The India Monsoon Time Scale reveals many secrets of the Indian monsoon and its relationship with rainfall & other weather problems and natural calamities. For example, some bands, clusters and paths of low pressure systems along with the main paths of the Indian Monsoon (South-west monsoon and north-east monsoon) clearly seen in the map of the Indian monsoon it have been some cut-edged paths passing through its systematic zigzag cycles in ascending and descending orders which causes heavy rains & floods in some years and droughts & famines in another years according to their travel. . The tracking date of main path & other various paths such as south-west monsoon and north-east monsoon etc., of the Indian Monsoon denotes the onset of the monsoon, monsoon pulses or low pressure systems. And also we can find out many more secrets of the Indian monsoon such as droughts, famines, cyclones, heavy rains, floods, real images of the Indian monsoon, and onset & withdrawals of south west monsoon and north-east monsoon etc. by keen study of the Indian Monsoon Time Scale.

MEASURING OF THE MONSOON:

For example, during 1871-1990's, the main path of the Indian Monsoon was rising over June, July, August and creating heavy rains and floods in most years. During 1900-1920's, it was raising over August, September and resulting good rainfall in more years. During 1965-2004's it was falling over September and causing low rainfall and droughts in many years. At present it is rising upwards over June, July, August, September and will be resulting heavy rains & floods in coming years during 2004-2060. The tracking date of main path & other various paths such as south-west monsoon and north-east monsoon etc., of the Indian Monsoon denotes the onset of the monsoon, monsoon pulses or low pressure systems. And also we can find out many more secrets of the Indian monsoon such as droughts, famines, cyclones, heavy rains, floods, real images of the Indian monsoon, and onset & withdrawals of south west monsoon and north-east monsoon etc. by keen study of the Indian Monsoon Time Scale.

PRINCIPLE:

This is an Astrogeophysical/Astrometeorological phenomenon of effects of astronomical bodies and forces on the earth's geophysical atmosphere. The cause is unknown however the year to year change of movement of axis of the earth inclined at 23½ degrees from vertical to its path around the sun does play a significant role in formation of clusters, bands & paths of the Indian Monsoon and stimulates the Indian weather. The inter-tropical convergence zone at the equator follows the movement of the sun and shifts north of the equator merges with the heat low pressure zone created by the rising heat of the sub-continent due to direct and converging rays of the summer sun on the India Sub-Continent and develops into the monsoon trough and maintain monsoon circulation.

PHYSICAL APPEARANCE:

It is came to known in my researches that the North African Monsoon has a special physical appearance just as the Indian Monsoon.

MEASURES OF THE EUROPEAN MONSOON:

It is came to known in my researches that the North African Monsoon having some peculiar measures just as identified in the Indian Monsoon.

CONCLUSIONS:

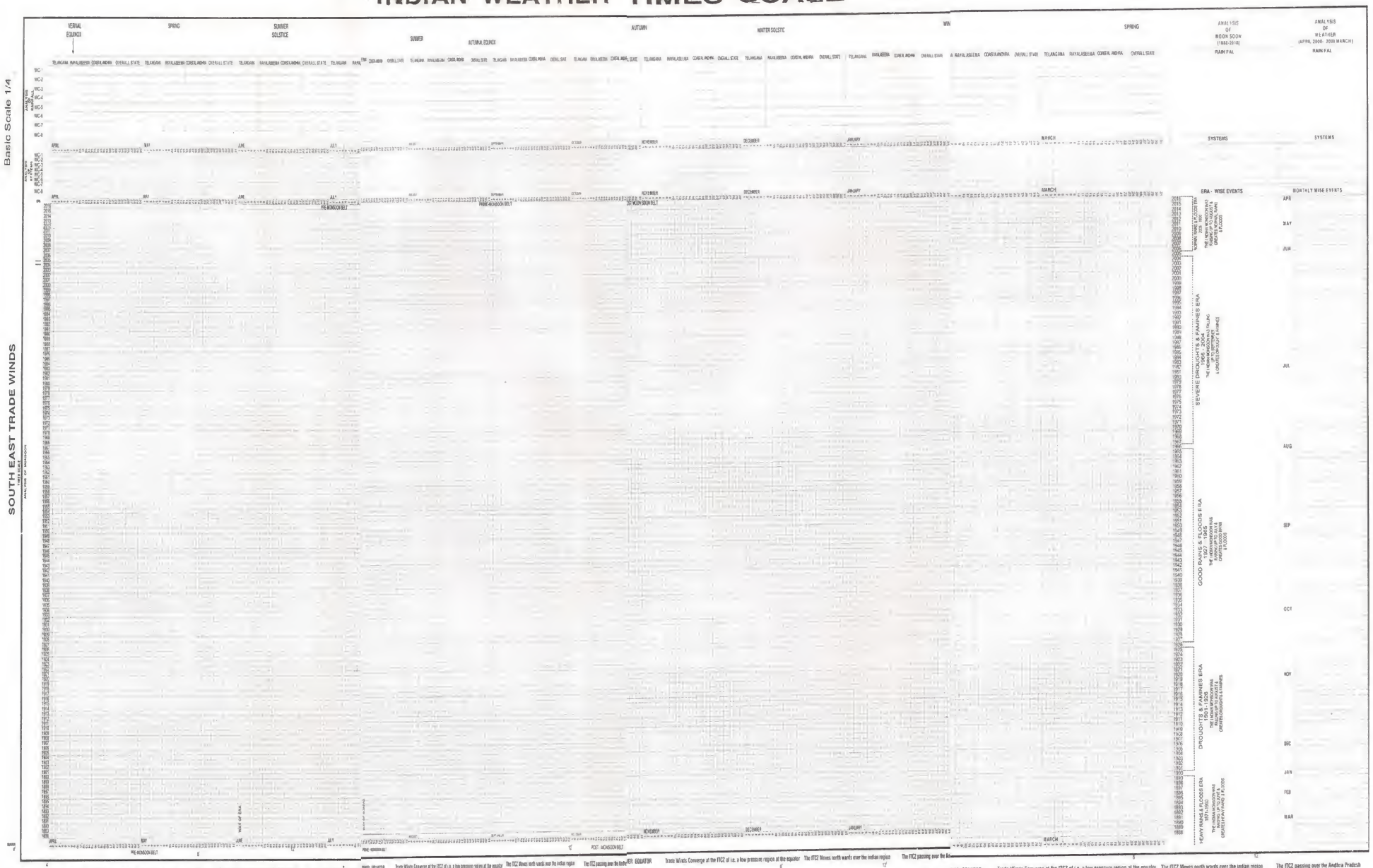
The world Scientist hereby requested to continue the further researches on the North African Monsoon Time Scale and find out the mysteries of the North African Monsoon. we can make many more modifications thus bringing many more developments in the North African Monsoon Time Scale.

REFERENCES:

1. Mooley DA. Shukla J(1987);Characteristics of the west ward-moving summer monsoon low pressure systems over the Indian region and their relationship with the monsoon rainfall. Centre for ocean-land atmospheric interactions, university of Maryland, college park, MD.
2. All India monthly and seasonal rainfall series,18711993,B.Parthasarathy,A.AMunot, D.R. Kothawale, Theoretical and applied climatology,1994,Springer.
3. Das P.K. and B.L. Bose, 1958, Numerical study of movement of monsoon depression, Ind. journal of meteor. Geophysics,
4. Analysis of variability and trends of extreme rainfall events over India using 104 years of gridded daily rainfall data, M. Rajeevan, J.Bhate, A.K. Jaswal, Geophysical Research letters,2008,online library.
5. jadhav, S.K.and A.A.Munot,2004;statistical study of the low pressure systems during summer monsoon season over the Indian region,mausam,55,15-30.
6. Clustering of low pressure system during the Indian summer monsoon by intra seasonal oscillations, bn.goswami, rs. ajaya mohan, prince Xavier ,and d. sengupta, centre for atmospheric and oceanic studies, Indian institute of science, bangolour, India.
7. Composite structure of monsoon low pressure system and its relation to Indian rainfall, v. Krishna murthy and rs. Ajaya mohan, 2010, j.climate,23,4285-4305
8. Indian monsoon university of st Andrews www.andrews.ac.uk/dibz/asia/monsoon/html.
9. Indian monsoon /meteorology/Britannica/.com www.britanica.com/science /Indian monsoon.
10. The global monsoon system: research and fore cast ;caos.iisc.in/faculty/bng/iwm-iii-bng-overview
11. Climate prediction centre-global monsoon; www.cpc ncep.noaa.gov, climate. weather.
12. The global monsoon system, www.wcrp-climate.org/documents/ monsoon –factsheet.
13. all India monthly and seasonal rainfall series, 1871-1993,b.parthasarathy, a.a mount,Dr. kothawale, theoretical and applied climatology,1994, Springer.
14. Parthasarathy .b, mount. aa, kothawale.dr, monthly and seasonal rainfall series for all India homogeneous regions and meteorological sub-divisions, 1871-1994, research report, iitm Pune.
15. Longest instrumental rainfall series of the Indian regions(1813-2006), Indian institute of tropical meteorology, Pune.
16. All Indian data series-(imd) Pune.
17. Monthly rainfall data series-ministry of earth sciences, moes.gov.in/
18. 114 years rainfall in India-interactive, India environmentportal.org.in/rainfall in India.
19. Education national geography.org/encyclopedia/monsoon.
20. Phoenix about.com/od/weather/a/monsoon trivia/htm.
21. In.wikipedia.org/wiki/monsoon.
22. www.wcpr-climate.org/documents/monsoon facts sheet.
23. The Global Monsoon system: Research and forecast (Report of the India National Committee of third International workshop on Monsoon (IWM-III)) 2-6 Nov-2004, Hangzhou, China Report No.70.

APPENDICES:

INDIAN WEATHER TIMES SCALE



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SOUTH EAST TRADE WINDS

TRIBES & DALITS

ANALYSIS OF MONSOON

VERNAL EQUINOX | SPRING | SUMMER SOLSTICE | SUMMER | AUTUMNAL EQUINOX | AUTUMN | WINTER SOLSTICE | WIN | SPRING

TELANGANA | RAYALASEEMA | COASTA ANDHRA | OVERALL STATE

ANALYSIS OF BOOK BOOK (1988-2014) — RAIN FAL

ANALYSIS OF WEATHER (APRIL 2005- 2008 MARCH) — RAIN FAL

WC-1 WC-2 WC-3 WC-4 WC-5 WC-6 WC-7 WC-8

ANALYSIS FLOW OF WIND

ANALYSIS SYSTEM

APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER JANUARY MARCH

SYSTEMS — SYSTEMS

PRE-MONSOON BELT — POST - MONSOON BELT

ERA - WISE EVENTS — MONTHLY WISE EVENTS

SEVERE CYCLONES & FAMINES ERA
1 YEAR - 2004
THE 1 YEAR BEGINNING WITH THE CYCLONE PALIPU & CYCLONE KOLLEY & FAMINE

GOOD RAINS & FLOODS ERA
1 YEAR - 1900
THE 1 YEAR BEGINNING WITH CYCLONE OF 10.11.1900 & FLOODS OF 1900

CIRCULATIVE & FAMINES ERA
THE 1 YEAR - 1900
THE 1 YEAR BEGINNING WITH CIRCULATIVE CYCLONE & FAMINES

HEAVY WINDS & FLOODS ERA
1871 YEAR
THE 1 YEAR BEGINNING WITH CYCLONE OF 10.10.1871 & FLOODS

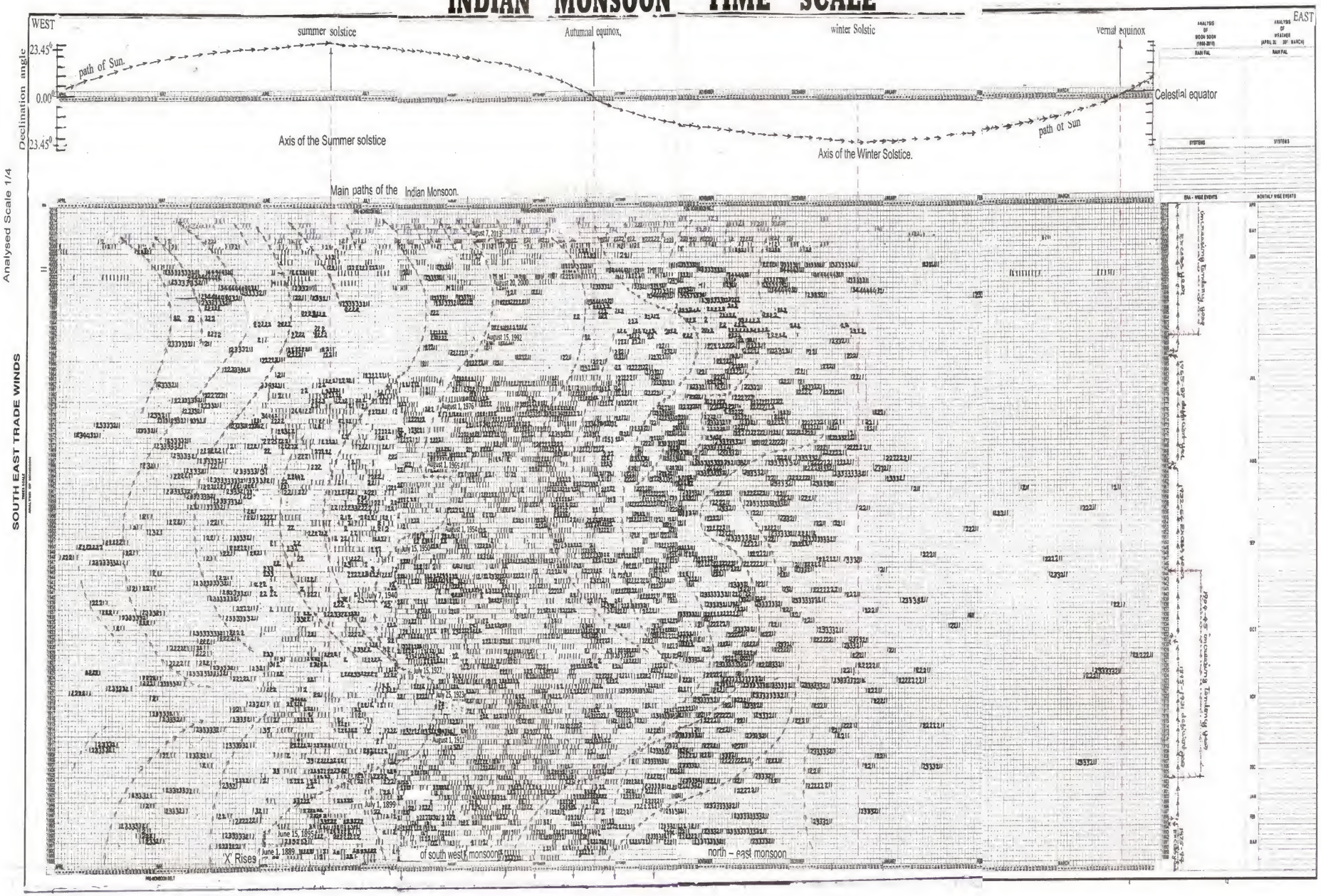
THE ITCZ SET FORTH OVER EQUATOR — Trade Winds Converge at the ITCZ at i.e. a low pressure region at the equator — The ITCZ Moves north wards over the Indian region — The ITCZ passing over the Andhra

PRE-MONSOON BELT — OVER EQUATOR — Trade Winds Converge at the ITCZ at i.e. a low pressure region at the equator — The ITCZ Moves north wards over the indian region — The ITCZ passing over the Gulf

POST - MONSOON BELT — OVER EQUATOR — Trade Winds Converge at the ITCZ at i.e. a low pressure region at the equator — The ITCZ Moves north wards over the indian region — The ITCZ passing over the A

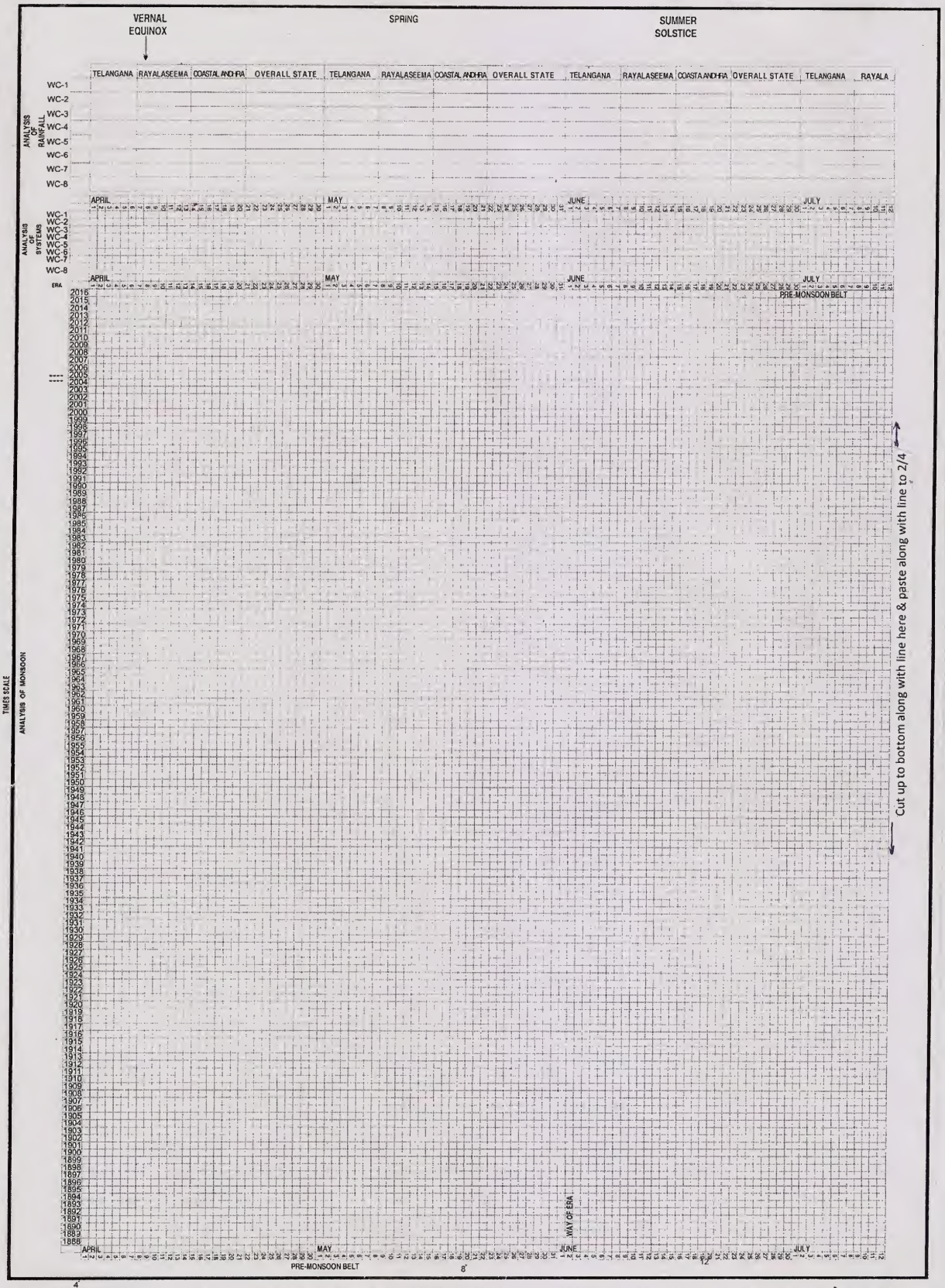
OVER EQUATOR — Trade Winds Converge at the ITCZ at i.e. a low pressure region at the equator — The ITCZ Moves north wards over the indian region — The ITCZ passing over the Andhra Pradesh

INDIAN MONSOON TIME SCALE



Basic Scale 1/4

SOUTH EAST TRADE WINDS



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THE ITCZ SET FORTH OVER EQUATOR

Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator

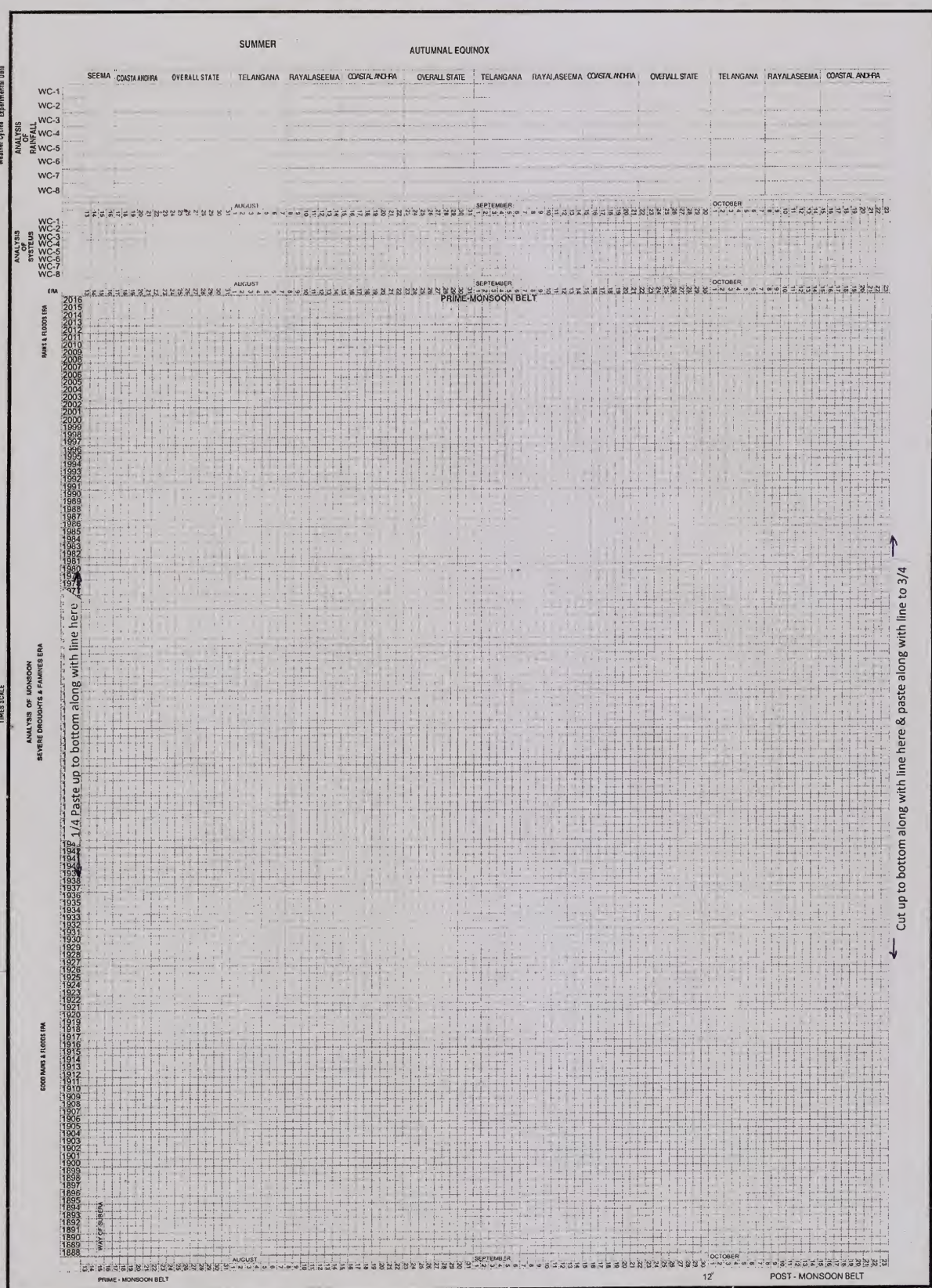
The ITCZ Moves north wards over the indian region

The ITCZ passing over the Andhra Pradesh

INDIAN WEATHER

Basic Scale 2/4

SOUTH EAST TRADE WINDS



THE ITCZ SET FORTH OVER EQUATOR

Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator

The ITCZ Moves north wards over the indian region

The ITCZ passing over the Andhra Pradesh

TIMES SCALE

Basic Scale 3/4

SOUTH EAST TRADE WINDS

TIMES SCALE

AUTUMN — WINTER SOLSTIC — WINTER

OVERALL STATE | TELANGANA | RAYALASEEMA | COASTAL ANDHRA | OVERALL STATE | TELANGANA | RAYALASEEMA | COASTAL ANDHRA | OVERALL STATE | TELANGANA | RAYALASEEMA | COASTAL ANDHRA | OVERALL STATE | TEL

ANALYSIS OF RAINFALL: WC-1, WC-2, WC-3, WC-4, WC-5, WC-6, WC-7, WC-8

NOVEMBER — DECEMBER — JANUARY — FEBRUARY

ANALYSIS OF SYSTEMS: WC-1, WC-2, WC-3, WC-4, WC-5, WC-6, WC-7, WC-8

NOVEMBER — DECEMBER — JANUARY — FEBRUARY

ERA

POST MOON SOON BELT

RAINS & FLOODS ERA: 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2002, 2001, 2000, 1999, 1998, 1997, 1996, 1995, 1994, 1993, 1992, 1991, 1990, 1989, 1988, 1987, 1986, 1985, 1984, 1983, 1982, 1981, 1980, 1979, 1978, 1977, 1976

SEVERE DROUGHTS & FAMINES ERA — ANALYSIS OF MONSOON

2/4 Paste up to bottom along with line here

GOOD RAINS & FLOODS ERA: 1943, 1942, 1941, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1922, 1921, 1920, 1919, 1918, 1917, 1916, 1915, 1914, 1913, 1912, 1911, 1910, 1909, 1908, 1907, 1906, 1905, 1904, 1903, 1902, 1901, 1900, 1899, 1898, 1897, 1896, 1895, 1894, 1893, 1892, 1891, 1890, 1889, 1888

HEAVY RAINS & FLOODS ERA

EQUATOR 0°

NOVEMBER — DECEMBER — JANUARY — FEBRUARY

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THE ITCZ SET FORTH OVER EQUATOR 4°

Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator 8°

The ITCZ Moves north wards over the indian region 12°

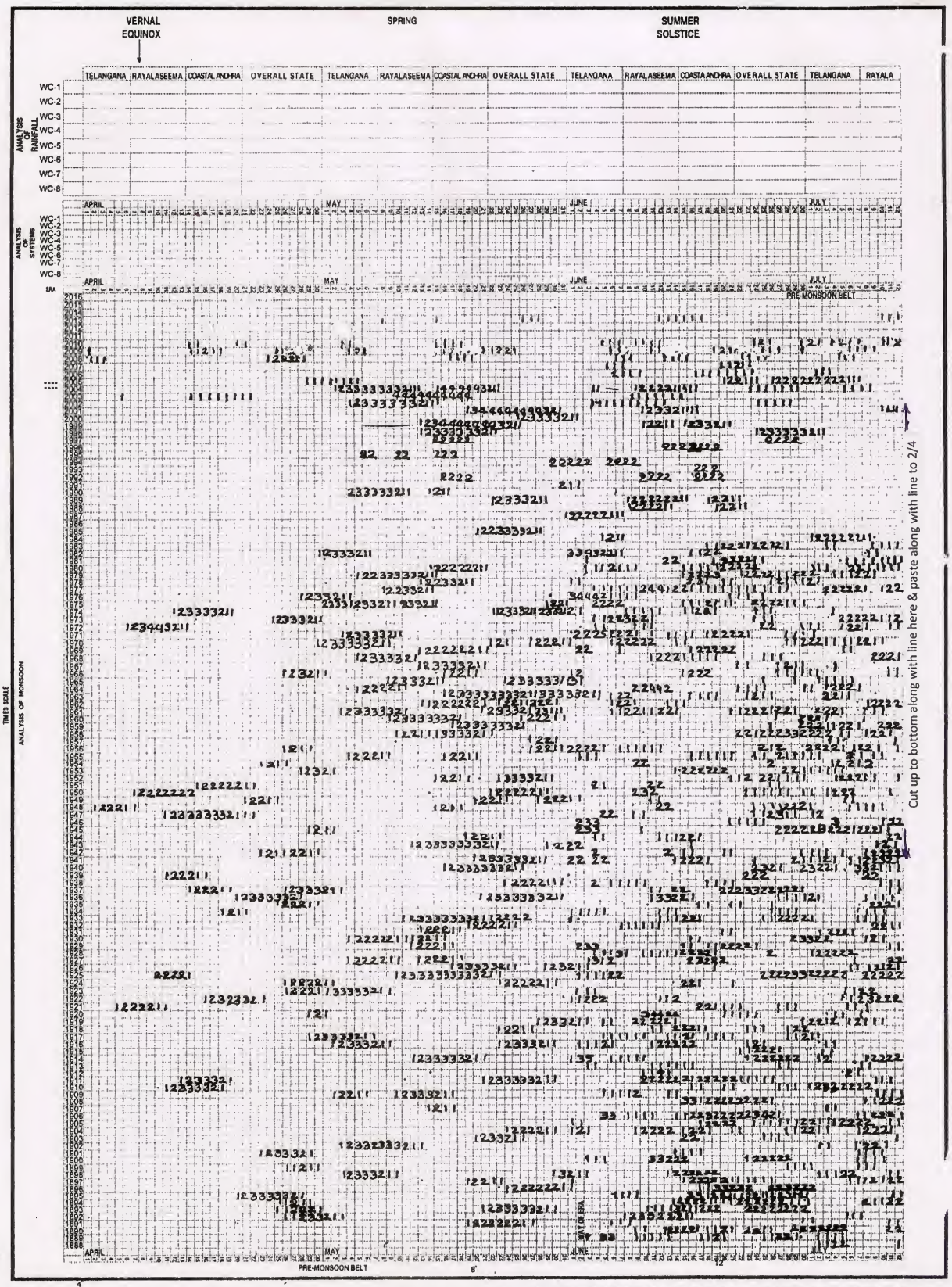
The ITCZ passing over the Andhra Pradesh

Basic Scale 4/4

SOUTH EAST TRADE WINDS

filled Scaled 1/4

SOUTH EAST TRADE WINDS



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THE ITCZ SET FORTH OVER EQUATOR

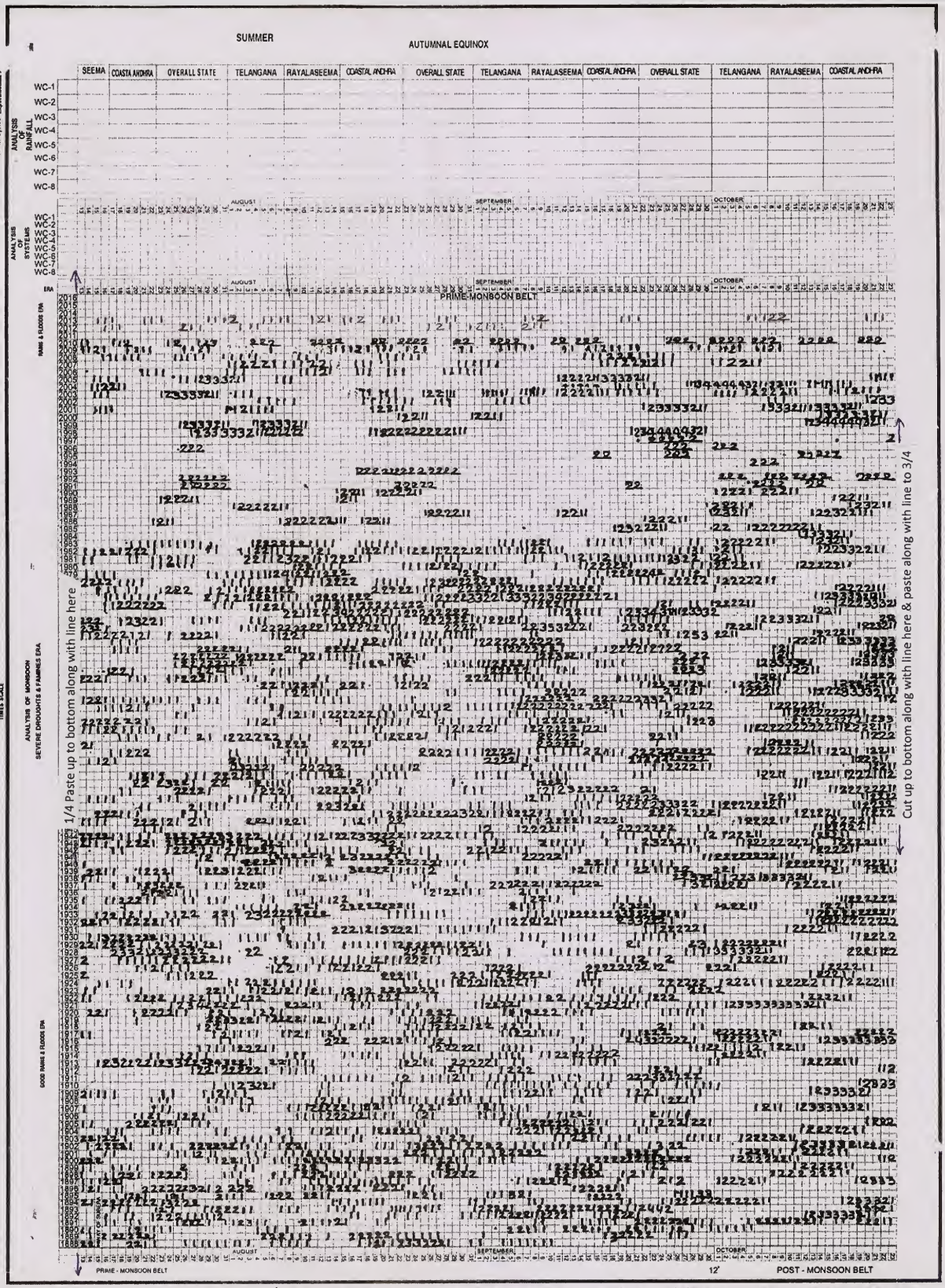
Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator

The ITCZ Moves north werds over the Indian region

The ITCZ passing over the Andhra Pradesh

filled Scaled 2/4

SOUTH EAST TRADE WINDS



ITCZ SET FORTH OVER EQUATOR

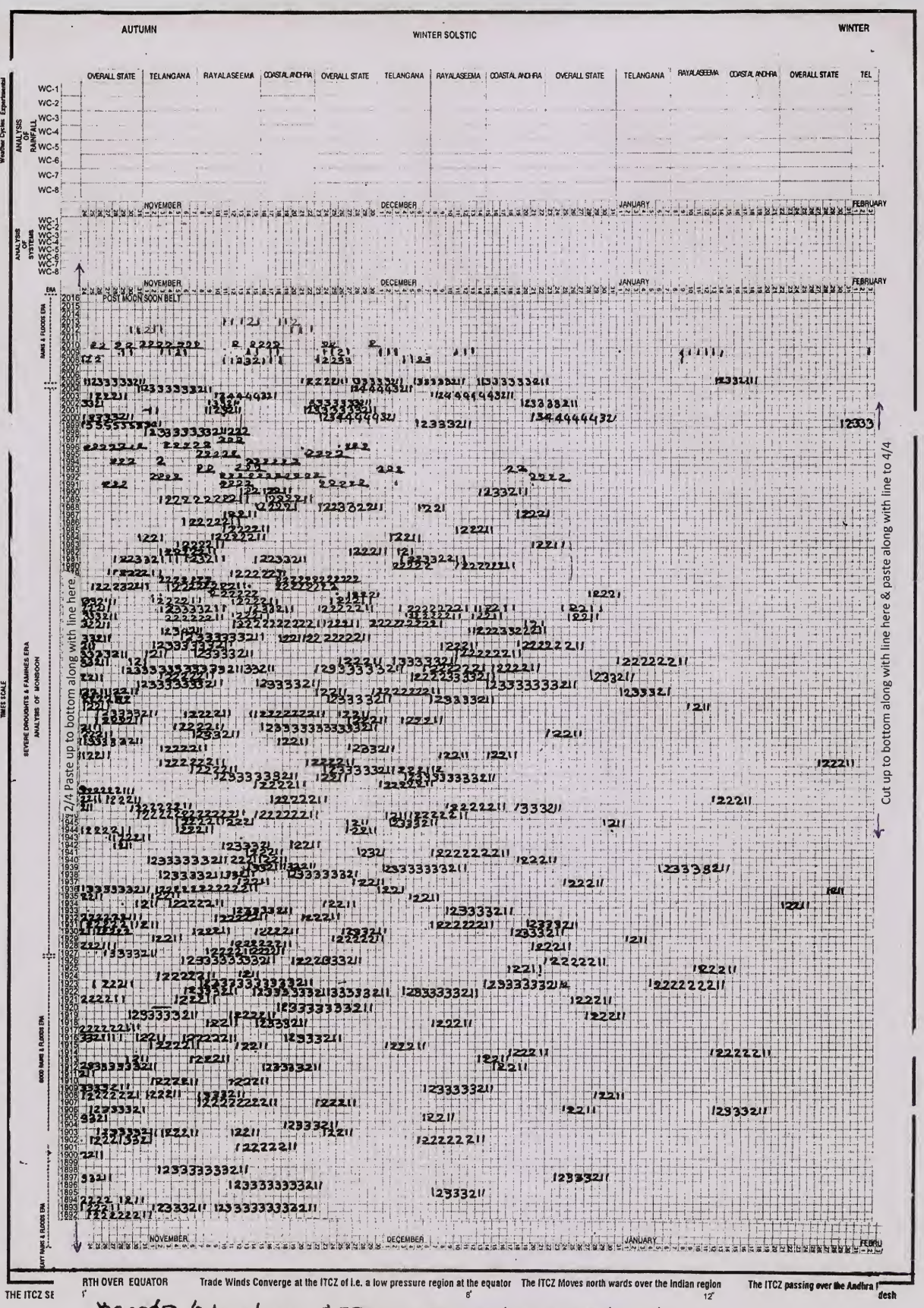
Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator

The ITCZ Moves north wards over the Indian region

The ITCZ passing over the Andhra Pradesh

filled Scaled 3/4

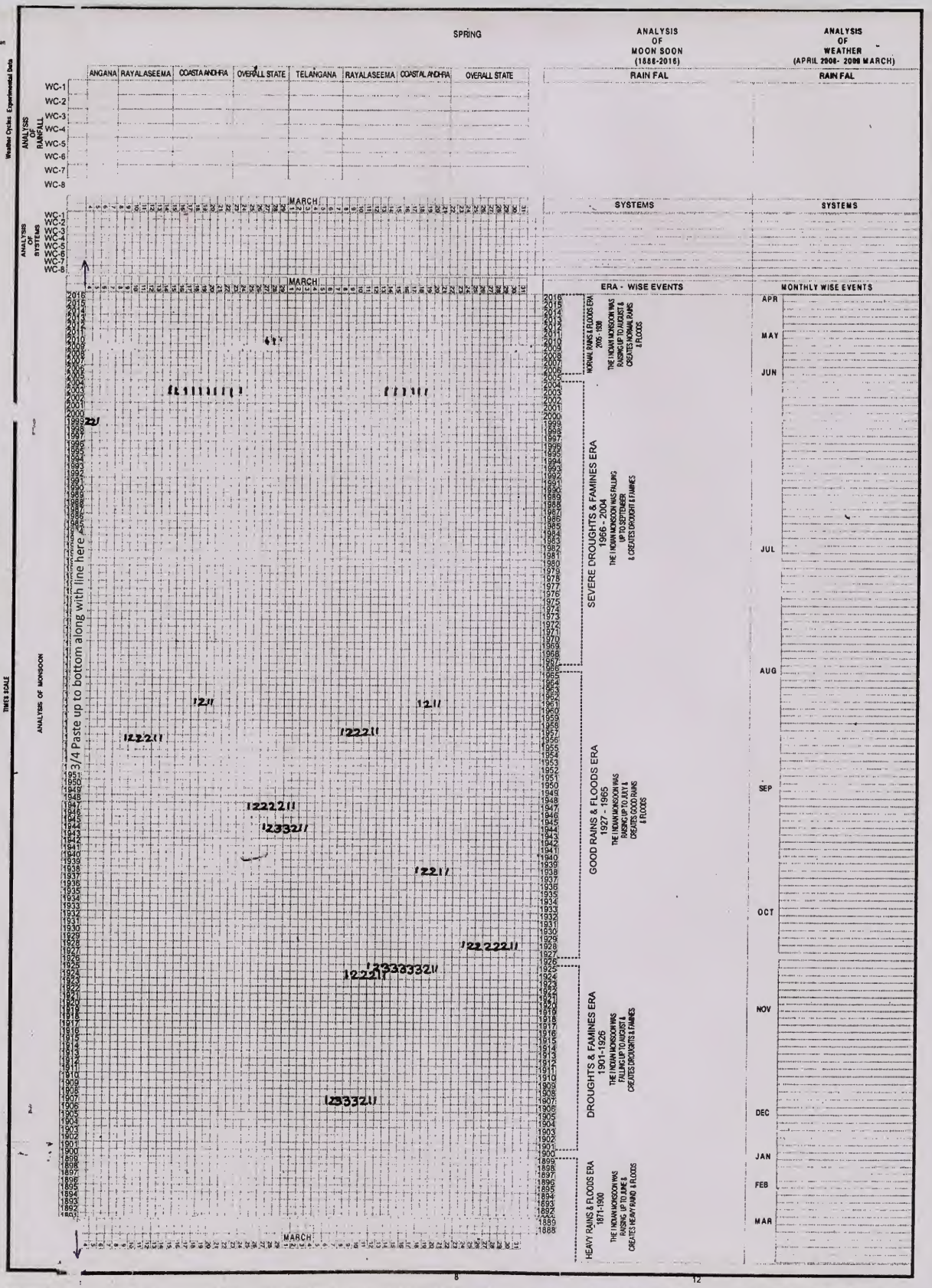
SOUTH EAST TRADE WINDS

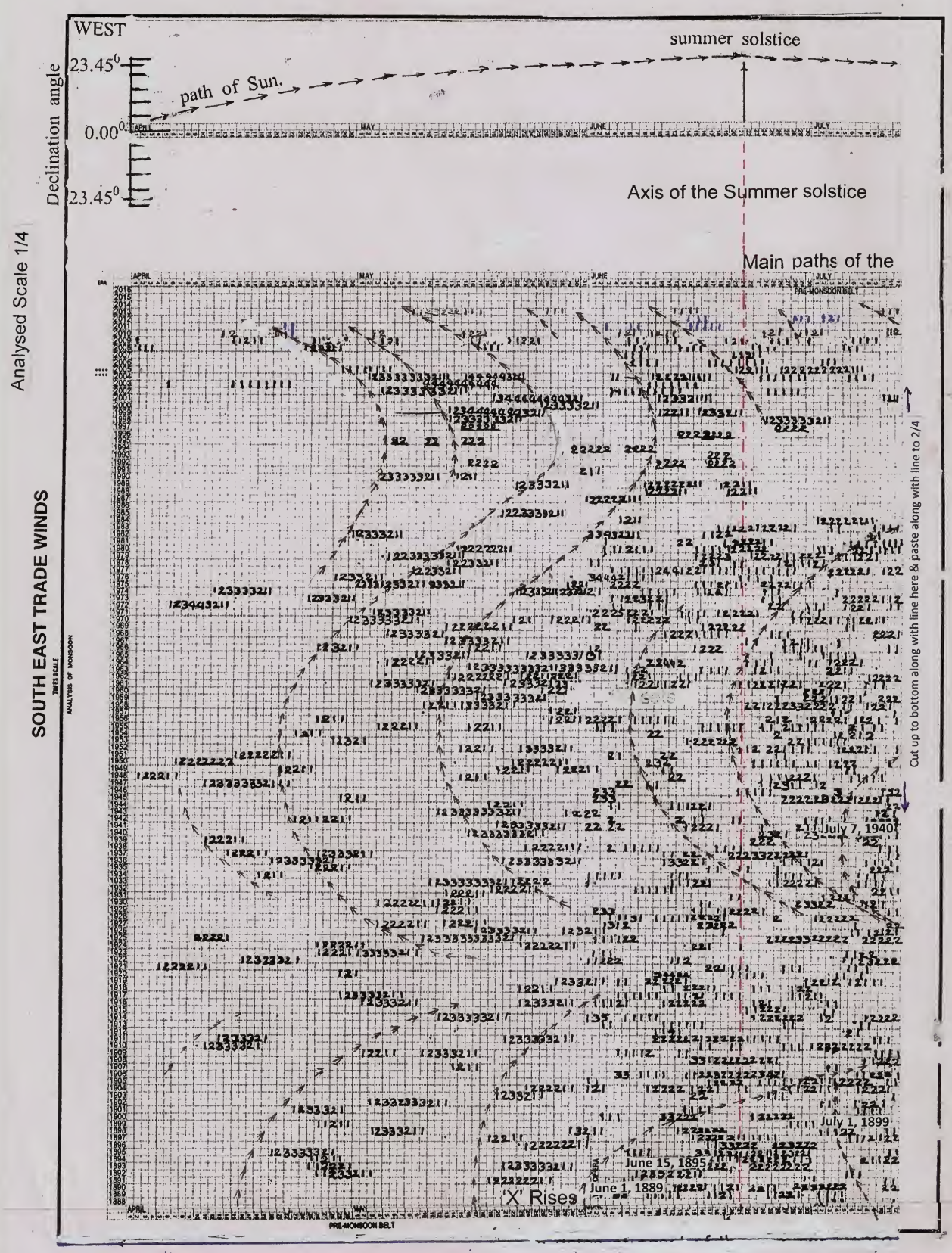


దులోని సమయాలు ఫలితాలు తటు ఇటుగా మారగలవు

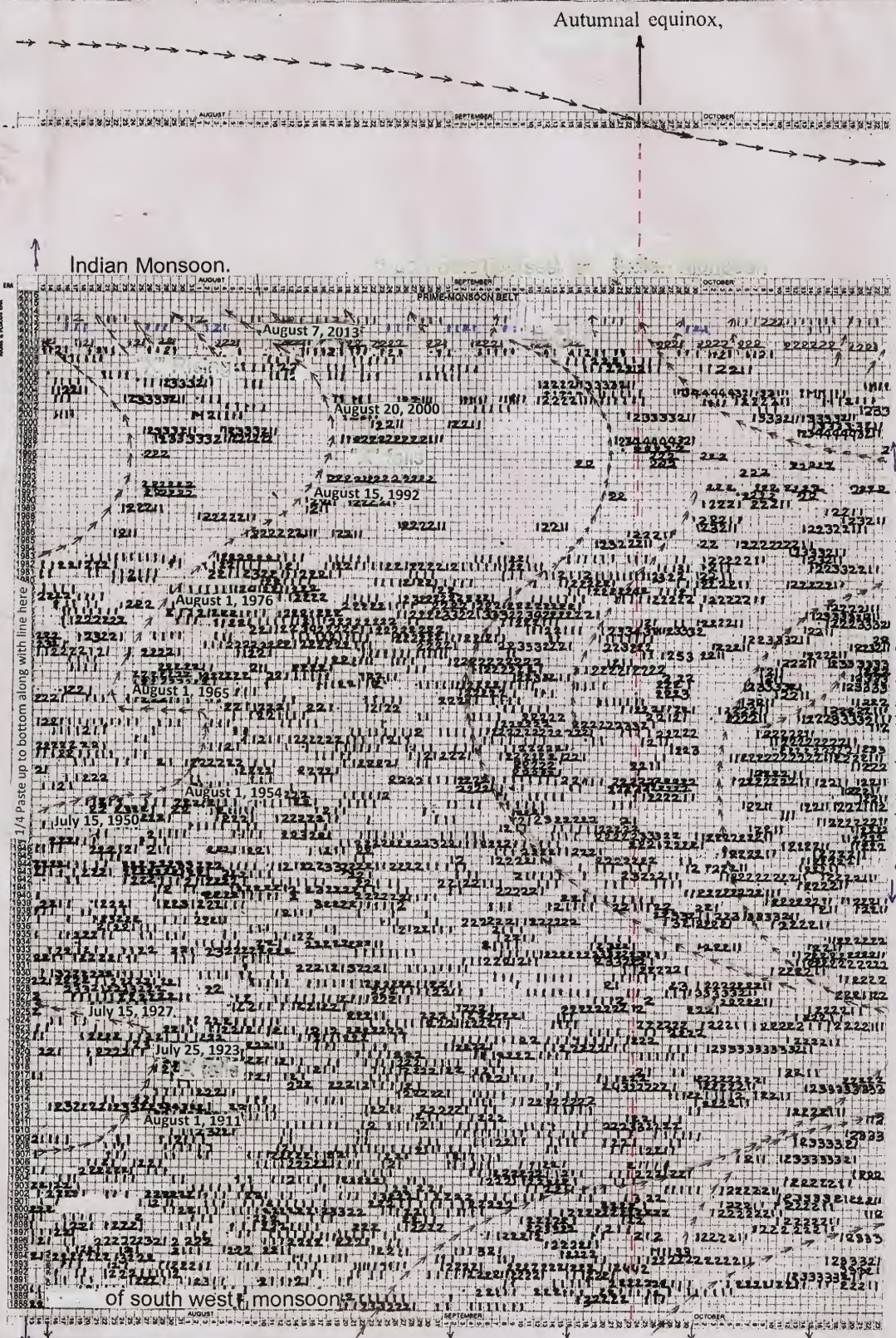
filled Scaled 4/4

SOUTH EAST TRADE WINDS




WEST
summer solstice
23.45⁰
path of Sun.
0.00⁰
23.45⁰
Declination angle
Axis of the Summer solstice
Main paths of the
Analysed Scale 1/4
SOUTH EAST TRADE WINDS
Cut up to bottom along with line here & paste along with line to 2/4
July 7, 1940
July 1, 1899
June 15, 1895
June 1, 1889
'X' Rises
APRIL
MAY
JUNE
JULY
PRE-MONSOON BELT

INDIAN MONSOON



Analysed Scale 2/4

SOUTH EAST TRADE WINDS

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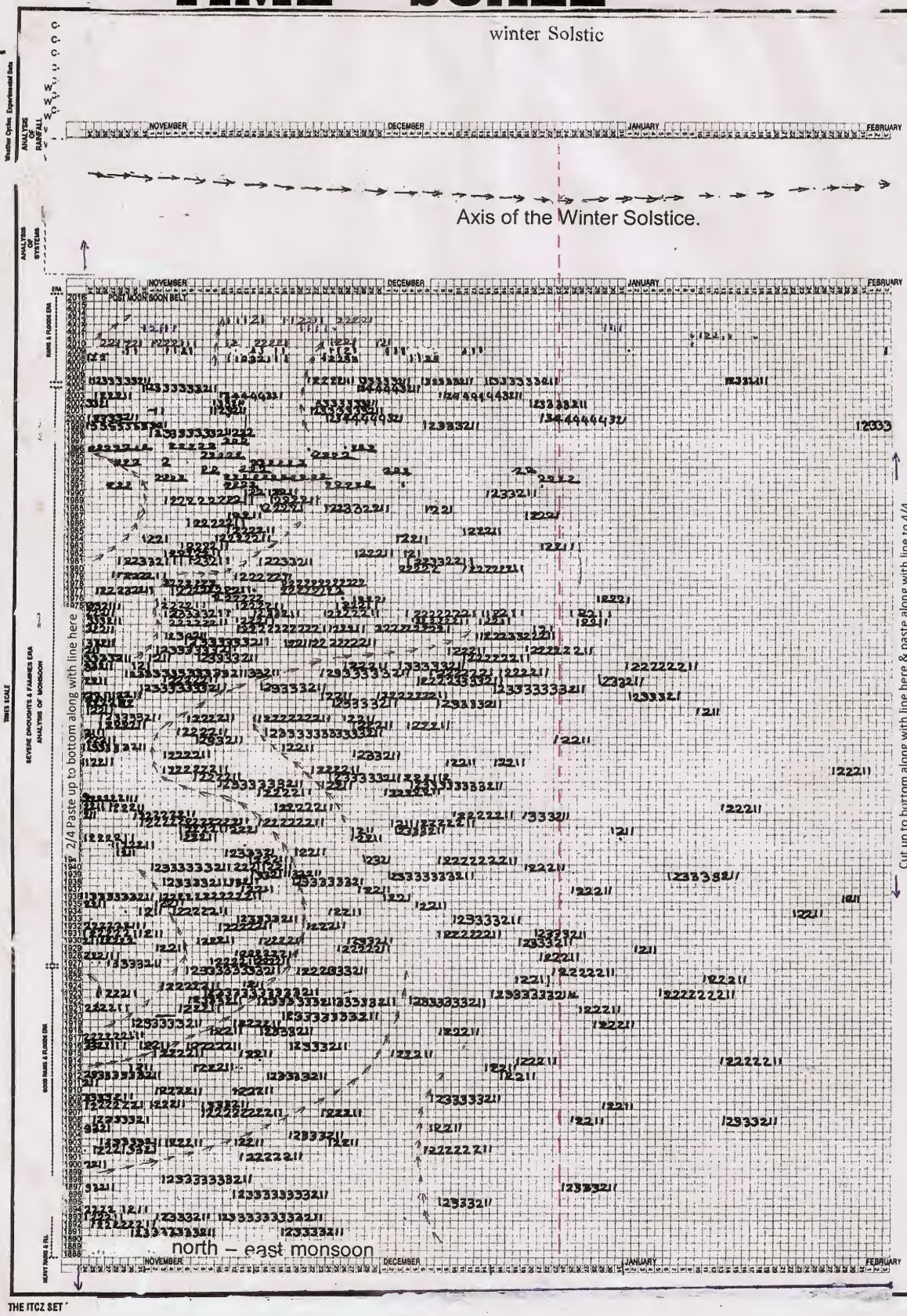
TIME SCALE

Analysed Scale 3/4

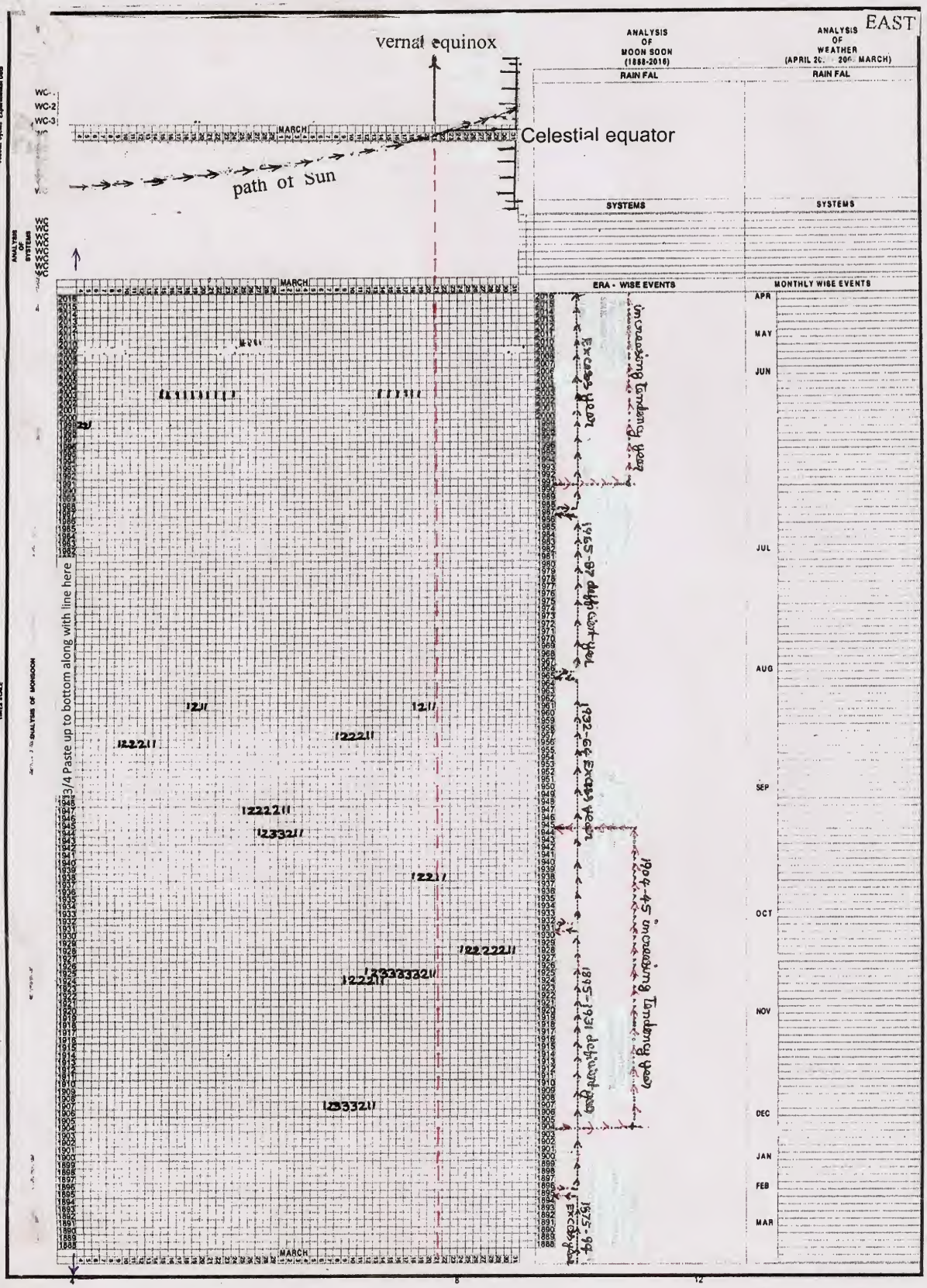


UTH EAST TRADE WINDS

THE ITCZ SET

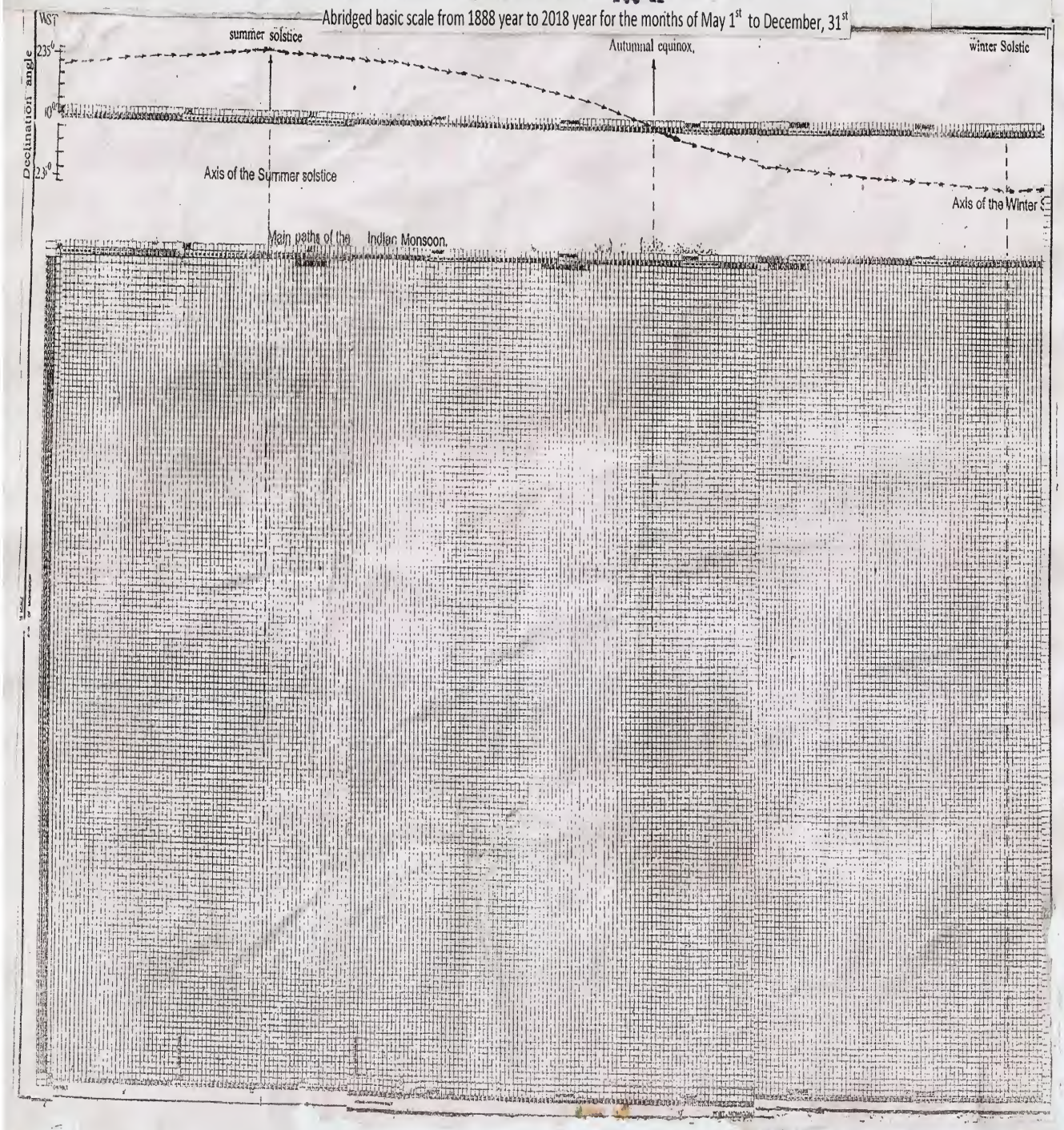
Analysed Scale 4/4

SOUTH EAST TRADE WINDS



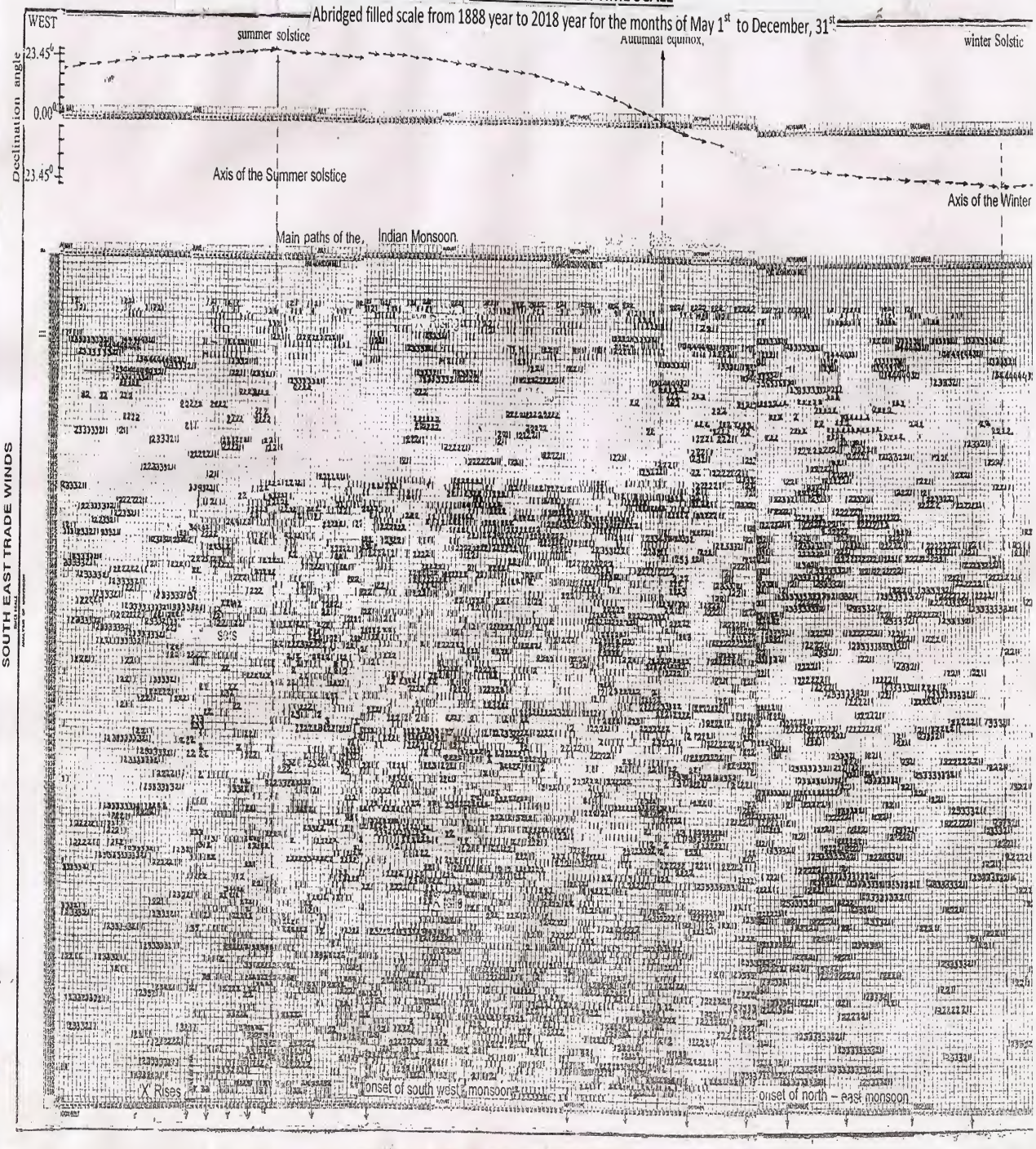
INDIAN MONSOON TIME SCALE

Abridged basic scale from 1888 year to 2018 year for the months of May 1st to December, 31st



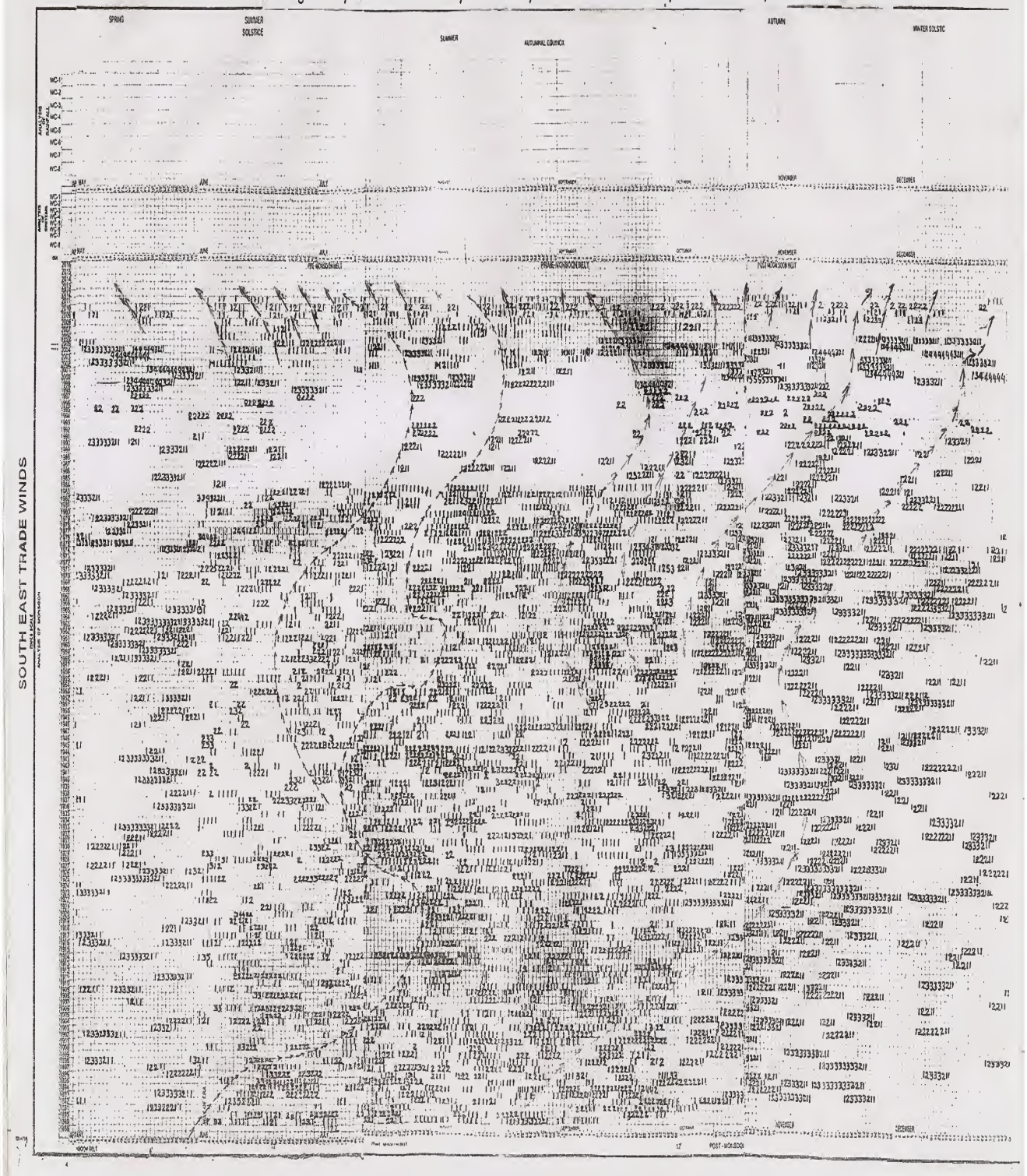
INDIAN MONSOON TIME SCALE

Abridged filled scale from 1888 year to 2018 year for the months of May 1st to December, 31st



INDIAN MONSOON TIME SCALE

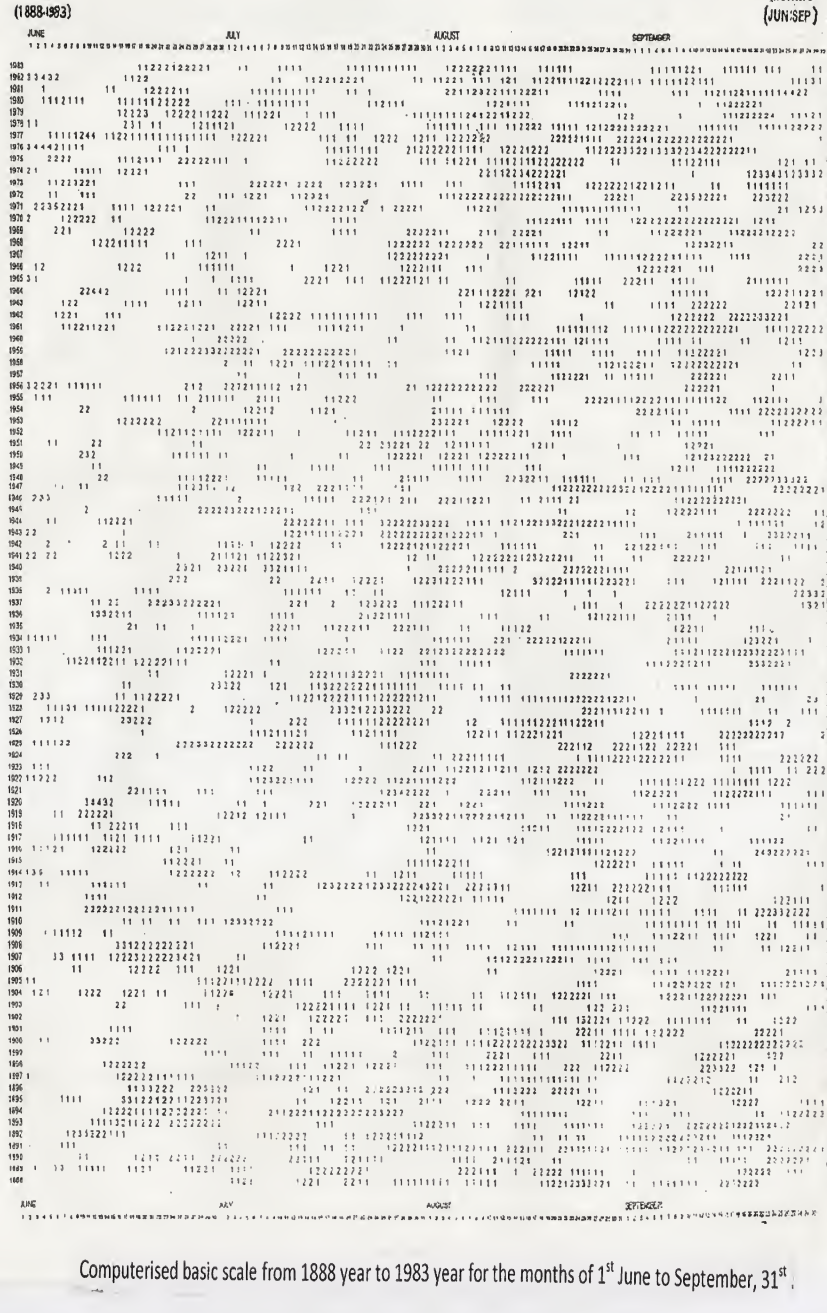
Abridged analysed scale from 1888 year to 2018 year for the months of May 1st to December, 31st



MAP OF THE INDIAN MONSOON

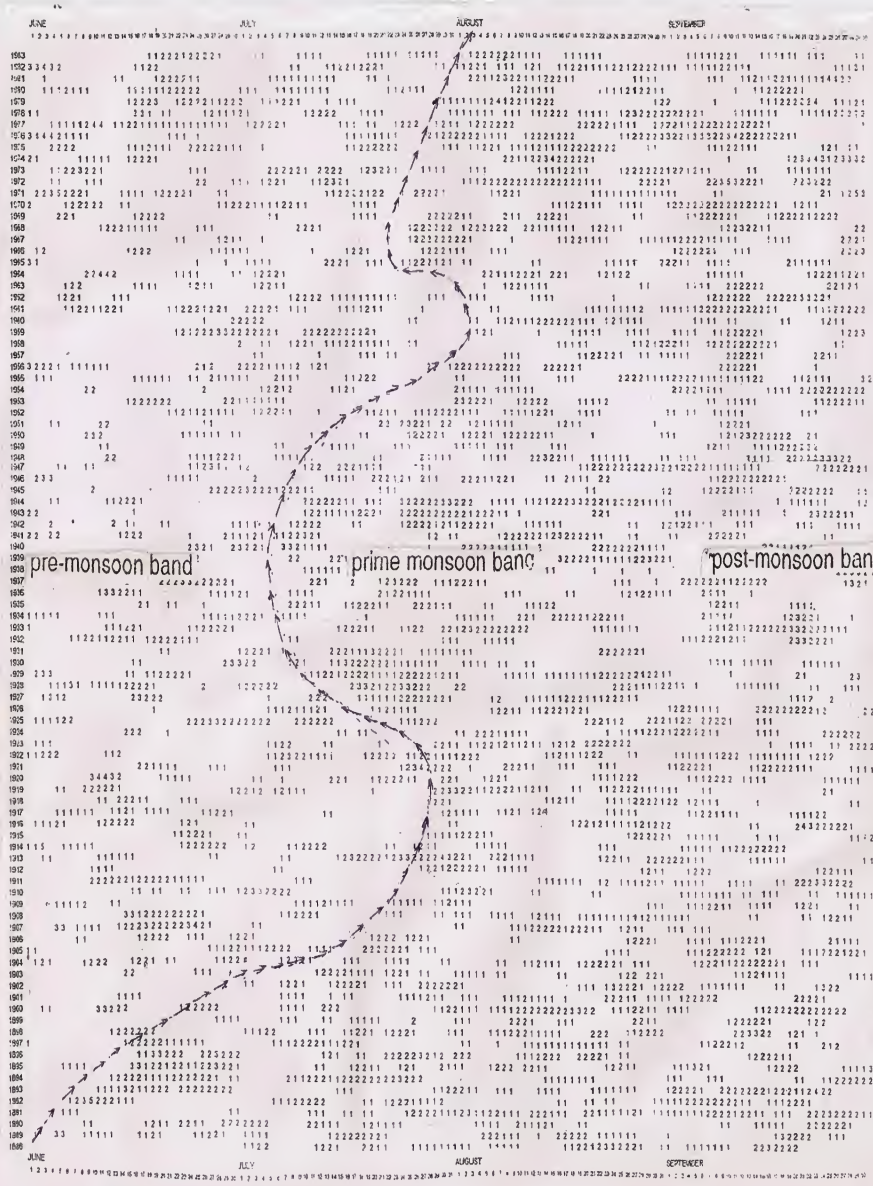
ANALYSIS OF Years (1888-1983)

ANALYSIS OF Months (JUN:SEP)



Computerised basic scale from 1888 year to 1983 year for the months of 1st June to September, 31st.

ANALYSIS



path of the systamatic cycle of the Indian Monsoon.

Computerised analysed scale from 1888 year to 1983 year for the months of 1st June to September, 31st.